

IN THE CLAIMS

The following claims have been presented previously with parenthetical status notations. An instruction line precedes each claim that is amended by the instant paper.

1. [ORIGINAL] A peptide having an amino acid sequence selected from the group consisting of:

RVIRVVQRACRAIRHIVRRIRQGLRRIL (SEQ ID NO: 1);

RVIRVVQRACRAIRHIVRRIRQGLRRILRVV (SEQ ID NO: 2); and

RWIRVVQRWCRAIRHIWRRIRQGLRRWLRVV (SEQ ID NO: 3).

2. [PREVIOUSLY AMENDED] A composition comprising one or more of the following peptides:

RVIRVVQRACRAIRHIVRRIRQGLRRIL (SEQ ID NO: 1);

RVIRVVQRACRAIRHIVRRIRQGLRRILRVV (SEQ ID NO: 2); and

RWIRVVQRWCRAIRHIWRRIRQGLRRWLRVV (SEQ ID NO: 3),

and a carrier.

3. [ORIGINAL] The peptide of claim 1 having the amino acid sequence: RVIRVVQRACRAIRHIVRRIRQGLRRIL (SEQ ID NO: 1).

4. [ORIGINAL] A composition comprising the peptide of claim 3 and a carrier.

5. [ORIGINAL] The peptide of claim 1 having the amino acid sequence: RVIRVVQRACRAIRHIVRRIRQGLRRILRVV (SEQ ID NO: 2).
6. [ORIGINAL] A composition comprising the peptide of claim 5 and a carrier.
7. [ORIGINAL] The peptide of claim 1 having the amino acid sequence: RWIRVVQRWCRAIRHIWRRIRQGLRRWLRVV (SEQ ID NO: 3).
8. [ORIGINAL] A composition comprising the peptide of claim 7 and a carrier.
9. [ORIGINAL] The peptide of claim 1 wherein said peptide has antimicrobial activity.
10. [PREVIOUSLY AMENDED] The peptide of claim 1 wherein said peptide has antimicrobial activity in a low salt medium.
11. [ORIGINAL] The peptide of claim 1 wherein said peptide has antimicrobial activity in physiologic salt
12. [ORIGINAL] A solid phase substrate comprising at least one peptide selected from the group consisting of:

RVIRVVQRACRAIRHIVRRIRQGLRRIL (SEQ ID NO: 1);

RVIRVVQRACRAIRHIVRRIRQGLRRILRVV (SEQ ID NO: 2); and

RWIRVVQRWCRAIRHIWRRIRQGLRRWLRVV (SEQ ID NO: 3).

13. [PREVIOUSLY AMENDED] The solid phase substrate of claim 12 wherein the peptide is RVIRVVQRACRAIRHIVRRIRQGLRRIL (SEQ ID NO: 1).
14. [ORIGINAL] The solid phase substrate of claim 12 wherein the peptide is RVIRVVQRACRAIRHIVRRIRQGLRRILRVV (SEQ ID NO: 2).
15. [ORIGINAL] The solid phase substrate of claim 12 wherein the peptide is RWIRVVQRWCRAIRHIWRRIRQGLRRWLRVV (SEQ ID NO: 3).
16. [ORIGINAL] The solid phase substrate of claim 12 wherein said solid phase is a prosthetic device.
17. [ORIGINAL] The solid phase substrate of claim 16 wherein said prosthetic device is a prosthetic joint.

Please **amend** claim 18 as follows:

18. [CURRENTLY AMENDED] The peptide of claim 1 wherein said peptide further comprises at least one additional cysteine residue.
19. [ORIGINAL] The peptide of claim 18 wherein said peptide is a disulfide linked dimeric peptide.
20. [ORIGINAL] A peptide-cargo complex comprising a cargo and a peptide selected from the group consisting of:
- RVIRVVQRACRAIRHIVRRIRQGLRRIL (SEQ ID NO: 1);
- RVIRVVQRACRAIRHIVRRIRQGLRRILRVV (SEQ ID NO: 2); and
- RWIRVVQRWCRAIRHIWRRIRQGLRRWLRVV (SEQ ID NO: 3).
21. [ORIGINAL] The peptide-cargo complex of claim 20 wherein said peptide has antimicrobial activity and said cargo increases the antimicrobial activity of said peptide.

Please **amend** claim 22 as follows:

22. [CURRENTLY AMENDED, PREVIOUSLY RENUMBERED] A method for inhibiting microbial growth comprising ~~administering~~ contacting a microbe with an antimicrobially effective amount of at least one peptide selected from the group consisting of:

RVIRVVQRACRAIRHIVRRIRQGLRRIL (SEQ ID NO: 1);

RVIRVVQRACRAIRHIVRRIRQGLRRILRVV (SEQ ID NO: 2); and

RWIRVVQRWCRAIRHIWRRIRQGLRRWLRVV (SEQ ID NO: 3).

23. [CURRENTLY AMENDED, PREVIOUSLY RENUMBERED] The method of ~~claim 23~~claim 24 wherein said peptide inhibits microbial growth in *in vitro* cell cultures.

24. [CURRENTLY AMENDED, PREVIOUSLY RENUMBERED] A method for inhibiting microbial growth in a subject comprising administering to the subject an antimicrobially effective amount of at least one peptide selected from the group consisting of:

RVIRVVQRACRAIRHIVRRIRQGLRRIL (SEQ ID NO: 1);

RVIRVVQRACRAIRHIVRRIRQGLRRILRVV (SEQ ID NO: 2); and

RWIRVVQRWCRAIRHIWRRIRQGLRRWLRVV (SEQ ID NO: 3).

25. [PREVIOUSLY RENUMBERED] The method of claim 24 wherein said peptide is administered topically, enterally or parenterally.
26. [PREVIOUSLY RENUMBERED] The method of claim 22 or 24 wherein said peptide is attached to a solid phase substrate.
27. [PREVIOUSLY RENUMBERED] The method of claim 22 or 24 wherein said microbial growth is resistant to antibiotics.

Please **add** new claims 28-45 as follows:

28. [NEW] An antimicrobial compound comprising a peptide having an amino acid sequence selected from the group consisting of: RVIRVVQRACRAIRHIVRRIRQGLRRIL (SEQ ID NO: 1); RVIRVVQRACRAIRHIVRRIRQGLRRILRVV (SEQ ID NO: 2); and RWIRVVQRWCRAIRHIWRRIRQGLRRWLRVV (SEQ ID NO: 3).

29. [NEW] The antimicrobial compound of claim 28, wherein said peptide has the amino acid sequence:  
RVIRVVQRACRAIRHIVRRIRQGLRRIL (SEQ ID NO: 1).
30. [NEW] The antimicrobial compound of claim 28 , wherein said peptide has the amino acid sequence:  
RVIRVVQRACRAIRHIVRRIRQGLRRILRVV (SEQ ID NO: 2).
31. [NEW] The antimicrobial compound of claim 28 , wherein said peptide has the amino acid sequence:  
RWIRVVQRWCRAIRHIWRRIRQGLRRWLRVV (SEQ ID NO: 3).
32. [NEW] The antimicrobial compound of claim 28, wherein said molecule has antimicrobial activity in a low salt medium.
33. [NEW] The antimicrobial compound of claim 28, wherein said molecule has antimicrobial activity in physiologic salt
34. [NEW] The antimicrobial compound of claim 28, wherein said molecule further comprises at least one additional cysteine residue.
35. [NEW] The antimicrobial compound of claim 34, wherein the peptide comprises two cysteines that are disulfide linked to each other.

36. [NEW] The antimicrobial compound of claim 34, wherein said peptide is a disulfide-linked dimeric peptide.
37. [NEW] The antimicrobial compound of claim 28, further comprising a cargo.
38. [NEW] The antimicrobial compound of claim 37, wherein the antimicrobial activity of said molecule is higher than the antimicrobial activity of said peptide alone.
39. [NEW] The antimicrobial compound of claim 37, wherein the cargo is selected from the group consisting of an antibacterial enzyme, an antibiotic, and a drug.
40. [NEW] A method for inhibiting microbial growth comprising:
- contacting a microbe with an effective amount of at least one antimicrobial compound comprising:
- a peptide selected from the group consisting of
- RVIRVVQRACRAIRHIVRRIRQGLRRIL (SEQ ID NO: 1);
- RVIRVVQRACRAIRHIVRRIRQGLRRILRVV (SEQ ID NO: 2);
- and RWIRVVQRWCRAIRHIWRRIRQGLRRWLRVV (SEQ ID NO: 3).
41. [NEW] The method of claim 40, wherein said contacting is performed in in vitro cell cultures.



42. [NEW] A method for inhibiting microbial growth in a subject comprising:

administering to the subject an antimicrobially effective amount of at least one antimicrobial compound comprising:

a peptide selected from the group consisting of

RVIRVVQRACRAIRHIVRRIRQGLRRIL (SEQ ID NO: 1);

RVIRVVQRACRAIRHIVRRIRQGLRRILRVV (SEQ ID NO: 2);

and RWIRVVQRWCRAIRHIWRRIRQGLRRWLRVV (SEQ ID NO:

3).

43. [NEW] The method of claim 42 wherein said peptide is administered topically, enterally or parenterally.

44. [NEW] The method of claim 40 or 42 wherein said peptide is attached to a solid phase substrate.

45. [NEW] The method of claim 40 or 42 wherein said microbial growth is resistant to antibiotics.